

plane
GRUMMAN
news

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***Astronauts meet Grummanites —
it's a mutual admiration society!***

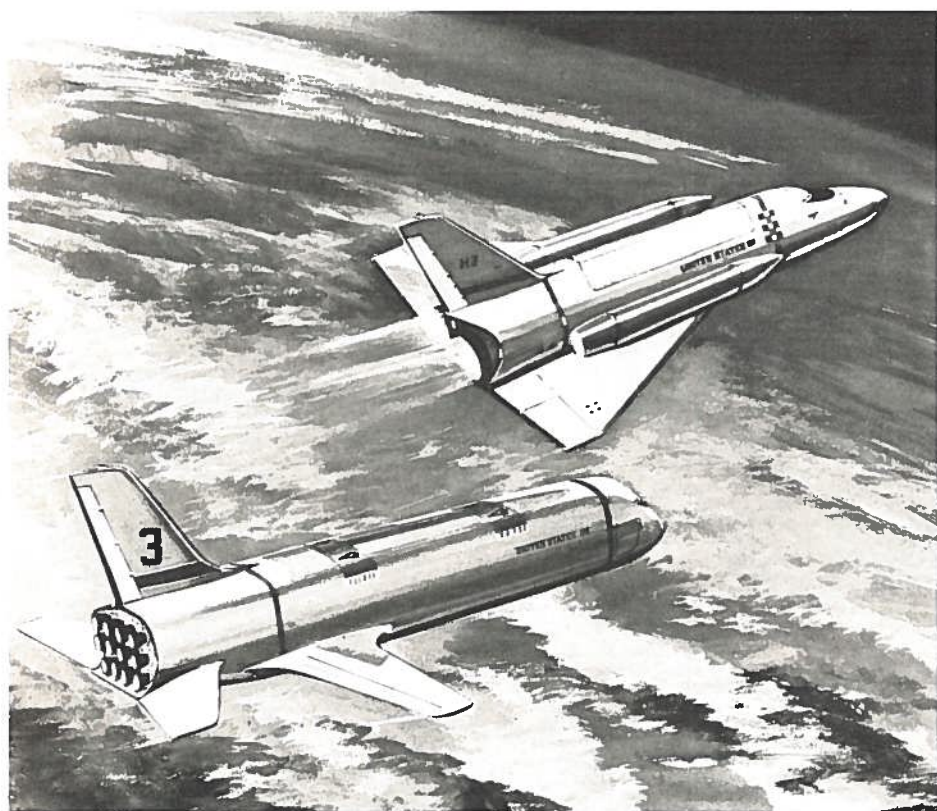
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Gavin E.O.B. chairman

Senior Vice President Joe Gavin, director of Space Programs, has been named chairman of the Grumman Executive Operations Board, previously chaired by Bill Zarkowsky, new President of Grumman Aerospace Corporation.

Ross Mickey is appointed director of Aircraft Programs, responsible also for the direction of all Marine, Ocean Systems, and Ground Transportation Programs. He will be a member of the Executive Operations Board, also, and of the Senior Salary Review Board. Mickey was named a Vice President of Grumman Aerospace last month.

For the past two years, Mickey has been deputy to Bill Zarkowsky, concentrating on Aircraft Programs. Before his election to the Aerospace presidency in mid-February, Zarkowsky headed all Aircraft, Marine, Ocean Systems, Tracked Vehicle, and Ecosystems programs.



New 'Spaceplane.' This rendering by Bud Parke of Presentations Services shows latest booster (L) and orbiter configurations, both designed for re-useability. Orbiter has external fuel tanks, booster tanks are thick, for heat sink.



Best program. Grumman, for second time, won plaque for best safety program among all contractors at Kennedy Space Center. Chuck Kroupa, director of Operations for Grumman at KSC, accepts it from Dr. Kurt Debus (R), director of Kennedy Space Center. Jack Andrews (L) is Grumman's director of Safety at KSC. Grumman worked more than 4½ million manhours from January '69 to March '71 without a lost-time accident.

Astronauts applaud LM-11 team

Late last month, three Apollo 16 astronauts were at Bethpage to participate in the Final Engineering Acceptance Test (FEAT) on LM-11. How well it went was described in a letter sent by John Young, Charles Duke, and Fred Haise to Dr. Ralph Tripp, Vice President and director of the LM Program.

"We were extremely well pleased," they said, "with the professional competence of the test team and the vehicle appearance and system performance. All three of us have never seen a more smoothly run procedure or a vehicle come through such a major test so free of discrepancies.

"We would like for you to pass on to all the members of the manufacturing team and . . . the test team our thanks

and congratulations for a job well done. It is just great working with a bunch of guys who exhibit such professionalism."

Young is scheduled to be commander of the Apollo 16 mission, Duke the Lunar Module pilot, and Tom Mattingly, who was not present for the FEAT, the Command Module pilot. Fred Haise, the LM pilot aboard Apollo 13, is commander of the Apollo 16 backup crew.

The next moon mission—Apollo 15—is scheduled to begin July 26. Early that morning, Spacecraft Commander Dave Scott, CM pilot Al Worden, and LM Pilot Jim Irwin will blast off from Kennedy Space Center aboard Apollo 15, with their lunar touchdown scheduled for Hadley Rill.

Grumman-Boeing offers new design, steps up team effort

Interrupting for a little while that tremendous, constant push that carries the Grumman Space Shuttle team toward its June 30 study contract deadline, a group of experts from Grumman flew to Phoenix, Ariz., March 15-18 to do a little cross-pollinating with the industry, the National Aeronautics and Space Administration, and the military.

On the evening of the first day, a meeting open to the public and entitled "Why—the Space Shuttle," drew 1,500.

The long-handled name of the four-day conclave suggests the range of topics in the tightly packed agenda: "AIAA Space Shuttle Development, Testing and Operations Conference/NASA Space Shuttle Technology Conference." Grumman's contribution to the thinking included the following:

Gavins sums up

A deft summation by Senior Vice President Joe Gavin of some of the critical issues of "Low Cost Space Operations" and the suggestion that the Shuttle should be renamed the "Space-

plane"; a talk by Space Shuttle Program Director Larry Mead on "Flight Testing Issues and Options"; a paper by Hank Wolf and Mike Vele, presented by Wolf, on "How to Assure Safe Mission Terminations." Klaus Feindler had the last spot on the last day's agenda, and his topic was "Development of a Bladderless Tank for Space Shuttle EC/LSS" (concerning a potable water supply for passengers and crew). Fred Raymes, assistant Shuttle director, was one of the organizers of the conference.

Ozzie Williams and Andy Erdelyi and Dick Bolton arranged the Grumman/Boeing exhibit, which was well attended, thanks in part to two pretty stewardesses lent by Eastern Airlines, an associate of the Grumman/Boeing team on the Shuttle Program. The display featured exhibits by all the Grumman/Boeing associates.

"The conference speakers looked into all phases of the Shuttle: payloads, testing, and operations," Mead said last week. "Air Force requirements were presented by Col. John Albert, director

of Space, USAF/RDS, and Gen. Sam Phillips, Space & Missile Systems Organization, Los Angeles. The Air Force is counting on the Shuttle (or Spaceplane) for all its launches once it is operational."

New thinking

Asked about the advances being made at Grumman's Shuttle headquarters in Bethpage, Mead said, "We are looking into a new 'H' configuration with external hydrogen tanks on the orbiter, and a heat sink booster.

"Having external hydrogen fuel tanks for the orbiter is a more efficient arrangement which will reduce the inert weight, cost, and size of the orbiter, and thereby increase the payload potential. It also reduces the technical risks and improves system safety."

Mead explained also that thicker aluminum fuel tanks would allow the booster to return to earth's atmosphere without an external radiative thermal heat shield over the tanks to protect them from the re-entry heating. The

extra thickness of the metal constitutes a heat sink that absorbs the heat without letting the tanks reach excessive temperatures, he said.

Competing with Grumman/Boeing for this important space contract are the McDonnell Douglas and the North American Rockwell teams. The Space Shuttle proposals of these very experienced aerospace giants, scheduled for completion June 30, will present NASA with a busy summer in which to choose the winner.

New Flight Shop items

Employees Services keeps adding new items to its already large selection on sale in the Flight Shop. The Aquarius tie bar and tack, the Apollo 14 patch, and a lightweight Grumman lighter are examples of new offerings.

Of course, ESO still offers framed photographs and aircraft models among other standard items, so it might be worth while for you to drop by at ESO in your plant and see for yourself.

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A first for Intruder

HON. JOHN H. CHAFEE



Cdr. Bob Miles, skipper of Attack Squadron 34 (VA-34), made his 100th arrested landing aboard the USS John F. Kennedy recently, and sitting alongside him was the most prestigious "bombardier-navigator" he's ever had flying with him in a Grumman A-6A Intruder. In the Intruder's right seat was Secretary of the Navy John Chafee, who had stopped aboard the Kennedy as part of a four-day visit with the Sixth Fleet. Chafee made the trip to visit with Navy personnel in the Mediterranean and to take a look at operating units of the Fleet.

Shortly after he arrived on the big carrier, the Navy Secretary was suited up for his first launch in a Navy operational aircraft. And when the Intruder flight was over, he commented: "We did everything from weightless state to slow rolls, and I even had the stick for a while." Naturally, when they returned, Chafee helped Commander Miles cut a special cake commemorating the Intruder skipper's 100th JFK landing.

Although Chafee might be considered a "rookie" in the B/N role, he picked an A-6 veteran to pilot the plane. Bob Miles has over 5,000 flight hours in operational aircraft since he enlisted in the Naval Aviation Cadet program in 1954, 1,900 of them in the A-6, and he has over 650 carrier arrested landings.

Commander Miles, who flew 204 combat missions over North Vietnam, has been decorated with the Silver Star, seven Distinguished Flying Crosses, 22 Air Medals, and the South Vietnamese Cross for Gallantry.

Miles has been commanding officer of VA-34, better known as the "Blue Blazers," since the Intruder squadron was commissioned at the Naval Air Station at Oceana, Va., in April 1970.

Post show dates for flower exhibits

Newcomers and retirees are invited to display their best blooms in the three Grumman flower shows scheduled for 1971. Kay Zuk of Employee Services Office is the new director, and she has announced some innovations in prizes and in location. Here is the schedule:

Wednesday, May 12, at Plant 35 Cafeteria: Tulip, Narcissus, Lilac Spring Show. Managers Sue Zamparelle and Arline Montgomery.

Thursday, June 17, at Plant 5 Cafeteria: Rose Show. Managers Chuck Belensky and Pete Haring.

Wednesday, October 27, at Plant 28: Chrysanthemum, Dahlia, Fruit & Vegetable Show. Managers Dot Kappenberg, Joe Gregg, and Mimi Abbatiello.

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Newcomers may have advice the morning of the show if they wish, "and your one single bloom in the garden may turn out to be the Best in Show," Kay Zuk comments. There will be a novice class for exhibitors who have never won a blue in any show, in any class.

Retired employees (who presumably have time to cultivate hobbies more intensively than before) are welcome. Check in at Plant 18 clearance gate to get a temporary badge.

Something new this year in prizes: gift certificates for the Flight Shop, for second, third, and honorable mentions, from ESO. First prize and Best of Show trophies will be bowls or trays from GAA.

Name Adm. McClellan to head Naval Air Systems Command

Rear Adm. Thomas R. McClellan, a naval aviator and World War II veteran of destroyer and carrier operations in the South Pacific, has been named to head the Naval Air Systems Command. He succeeds Rear Adm. Thomas J. Walker who will soon take command of all naval air forces in the Pacific Fleet. The change of command takes place on April 1.

In his new assignment, Admiral McClellan will command a multi-billion dollar complex which develops all aircraft and airborne weapon systems for the Navy and Marine Corps. The organization includes more than 55,000 people engaged in air systems work throughout the world.

Admiral McClellan brings a wealth of aeronautical experience to his new post. Following World War II, he returned to the Naval Academy for post-graduate instruction in aeronautical engineering. He later continued his studies at the California Institute of Technology where he was awarded a master of science degree in June 1947. He has commanded two patrol squadrons, a Fleet air wing and a carrier division, and served on the carriers Ticonderoga and Yorktown. His shore duties include assignments in the Bureau of Aeronautics, the Requirements and Developments branch of the Joint Staff, and as liaison officer to the Massachusetts Institute of Technology.

Born in Gatesville, Tex., Admiral McClellan lived in Waco, Tex., and attended Waco High School and Baylor University prior to entering the Naval Academy in 1939.



Rear Adm. Tom McClellan
New NASC commander

He graduated in 1942, reported to the destroyer USS Mugford, and saw action during the Guadalcanal-Tulagi landings, Lae and Finschhafen occupations, Bismarck Archipelago operation, and the occupation of Saidor. On the carrier Yorktown he participated in the Philippine and Okinawan campaigns and the first strikes against the Japanese home islands. He later commanded the assault transport Rockbridge and has served as deputy commander and comptroller of the Naval Air Systems Command prior to his new assignment.



Hawkeye flight. E-2 Program Manager Dean Cassell (R) chats with Jim Philbin, asst. chief test pilot, and his co-pilot Dick Van Allen following first flight in M-1, second prototype for new Hawkeye. (Photo by Larry Van Wallendael)



J. J. Kalman
Sub-Assem.



J. F. Aquilino
Prototype



A. Milito
Press



T. F. Karlecke
Press



E. H. Seagraves
Sm. Pts. Fab.



H. Garvin
Drop Hammer



H. F. Ward
Parts Paint



R. Beck
Tanks & Ducts



P. J. Troise
Inspection

WOW! . . .

March service list boasts big lineup of Company veterans

It's anniversary time again.

Completing 35 years of service to the Company in March are William Kutner of Power Plant Design, Plant 1, and John J. Fallon, P/S Aircraft Systems Service, NATC, Patuxent River.

Nineteen men make up the 30-year roster:

PLANT 1: Anthony B. Colby, Pre-Flight Finals/ System Installation; Edward E. Pabst, Structural Designers.

PLANT 2: Charles Eidenback, Steel Parts Assembly; Howard A. West, Production Management & Staff; Alfred H. Johnson, M P & P Manufacturing Cost Proposal.

PLANT 4: George A. Davidson, Production Control - Inventory Control; Roland M. Corwin, Flight Transportation.

PLANT 5: Roy W. Wood, Vehicle Technology Management & Staff.

PLANT 6: William D. Hannigan, Support Equipment Production.

PLANT 7: Vincent C. Fasanella, Flight Evaluation.

PLANT 25: Wilbur G. Klos, Project Engineering - Development Space.

PLANT 27: Stanley Pienkoski, Center Section Sub-Assembly.

PLANT 30: John C. Otto, Machined Parts/Material Admin.; Charles W. Dunn, Small Business Administration.

PLANT 33: Edward J. Macheski, GSE Mechanical; Harold A. Kressly, Production Oper. Management & Staff.

PLANT 35: Herbert S. Zipser, Engineering Administration.

PLANT 36: Robert E. Pook, Final Assembly - Structure; Walter J. Cereoli, Plant Management & Staff.

What was memorable 25 years ago? News was quiet compared to the war years. However, 25 years ago this month, the United States Government bestowed upon Roy Grumman and L. A. (Jake) Swirbul its highest civilian award, the Medal of Merit, "for exceptional meritorious conduct in the performance of outstanding services." Roy Grumman was still President, and Jake Swirbul was Executive Vice President at the time. Secretary of the Navy James V. Forrestal made the presentations.

One woman and 17 men celebrate their Silver Anniversaries with Grumman this month:

PLANT 1: James J. Kalman, Sub-Assembly - Major; Joseph F. Aquilino, Prototype.

PLANT 2: Anthony Milito and Theodore F. Karlecke, Press; Elliott H. Seagraves, Small Parts Fabrica-

tion; Henry Garvin, Drop Hammer; Hugh F. Ward, Parts Paint; Robert Beck, Tanks & Ducts; Pat J. Troise, Inspection - Mechanical.

PLANT 3: Michael L. Cerullo, Honeycomb Pre-Fit; Edward J. Cooney, Machine Operations - Tech Service.

PLANT 4: Osgan Kassapian, Final Assembly - Structure.

PLANT 5: Howard J. Baldwin, Production Control - Records & Release.

PLANT 6: Calvin C. Conrad, Tool Fabrication - Tool & Die Shop.

PLANT 12: Edward Brambach, Facilities Maintenance.

PLANT 34: Beryl A. White, Technical Directives.

PLANT 35: Dominick E. Pesce, Mechanisms.

PLANT 87: Robert L. Conrad, T/M Engineering - Sub-Contract.

The anniversary lists of 20-year and 15-year Grumman employees are growing longer, reflecting the large work forces brought in in 1951 and '56. Ninety-three are marking 20 years with Grumman this month:

PLANT 1: Raymond D. Piaseczny, Instrument A/C Test; Frederick Kuestner, Production Control Plant Stores & Distribution; David L. Sweezy, Charles L. Johnson, and Fred E. Bauer, Facilities Maintenance; Michael Kowalchik, Power Plant Design; Wentworth F. Myers, Mechanical System Structural Analysis; Lawrence M. Canonico, Program Management - F-14A.

PLANT 2: Joseph Patalano, Router & Shear; Walter

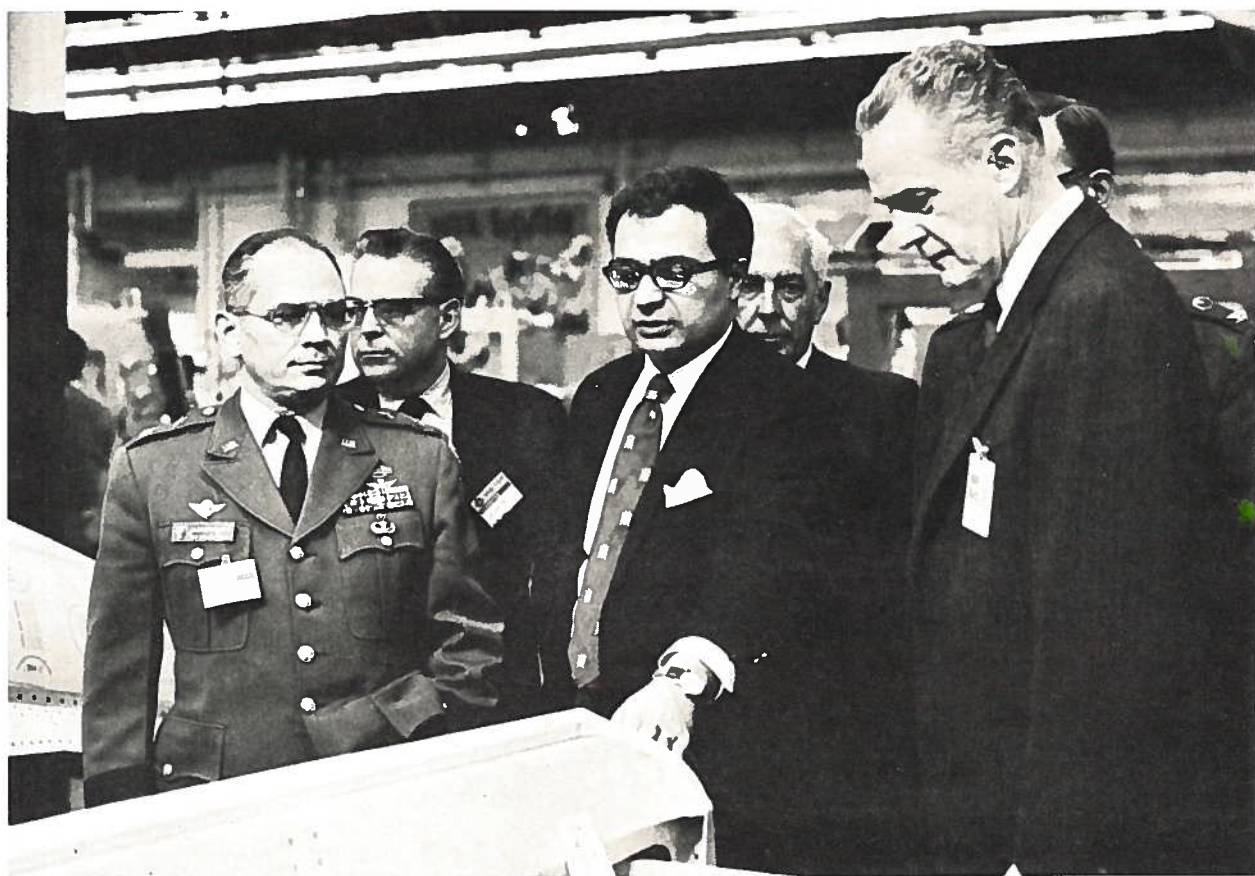
Abramoske, Press; Oswald Kinkel, Small Parts Fabrication; Douglas Ettinger and Everett Loeffler, Drop Hammer; William H. Horton, Alodine; Frank Budzenski, Controls; Vincent Schibani, Tanks & Ducts; Joseph P. Geraci, Steel Parts Assembly; Samuel Shuler and Joseph Famiglietti, Center Section Final; John Bauer and Dominick L. Quaresimo, Cleaning & Descaling; Hans R. Stocker, Tool Fabrication - Metal Form Tool; Emil Scharer, Tool Fabrication Grind & Mills; Curt J. Fels, T/M Engineering - A/C Production Program; Frederick J. Kastner, T/M Engineering - Spec. DT Form; Edward B. Moebes, T/M Engineering - LIA; Albert R. Steinmetz and William D. Rowehl, Facilities Maintenance; Edward F. Power, Inspection - Tooling; Russell De Puy, Quality Control Inspection Management.

PLANT 3: William J. Nealon, Small Parts Fabrication; Norwin H. Rehm, Engraving; Henley Wilson and Frederick J. Briggs, Wing Sub-Assembly.

PLANT 4: Lawrence I. Smith, Final Assembly - Structure; Frank J. Haggerty Sr. and Charles Becker, Production Control - Records & Release; William J. Golden, Production Control Plant Stores & Distribution; Felix J. Parise, P/S Administration.

PLANT 5: John J. Hospodar and Paul J. Jack, Final Assembly; Richard T. Birck, Flight Avionics; Jack P. Thornton, Environmental Control; Walter E. Reese, Facilities Maintenance; Andrew F. Kaufmann, Advanced Aircraft Systems; Laurence Gagliano, Inspection - Aerospace Assembly.

(Continued on page 5)



Bethpage visit. Maj. Gen. Jack Klingenhagen (L) visited Grumman a couple of weeks ago to discuss the Mohawk Program with Vice President Ross Mickey, director of Aircraft Programs. During the stopover, Gen. Klingenhagen, who heads the U.S. Army Aviation Systems Command, toured the F-14 production line with (L to R) Col. John Love, OV Program manager; Mike Ciminera, asst. to the F-14 Program director; Bill Cobey, director of Stuart Work Center; Ross Mickey; and (partially hidden) Col. Joe Van Cleve, Army Aviation Systems Command. (Photo by Fred Annette)

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Ag-Cat fame spreading

Don't let its antique biplane configuration fool you: the Grumman Ag-Cat is strictly modern. Sales continue good for the fourth consecutive year, and eager customers are found around the world.

Earl Duhamel, Ag-Cat Program manager, reports that total Ag-Cat sales rolled past the 800 mark in February. Most are to agricultural interests in the United States, but the tough little plane is in use also in many foreign countries, including Yugoslavia (more than a dozen), Colombia, Ethiopia, Kenya, the Sudan—where, according to Duhamel, a demanding type of flying, with heavy loads and rough landing strips, invites Ag-Cat performance.

Duhamel tells of the pre-Ag-Cat days in the late 1950s when Grumman engineers were studying the requirements that would be needed for an agricultural aircraft: short takeoffs on a muddy pas-

ture, climb-out invariably over utility poles and wires, flight over the field at a speed fast enough to make a profit. . . . nothing but a biplane fully matched such conditions.

"One other thing," he says. "No aircraft and no pilot can constantly fly so close to the ground or under the wires and over the barn and through the gap in the trees without eventually colliding with something. Each pilot interviewed begged for—better crash survival design!

"And that has been built in. You ream and fit with no slop or slap. You build a seat strong enough to give protection during crash conditions. Important points are stressed to 40 Gs.

"From the first flight of the prototype," he adds, "it was evident that the Ag-Cat was a world beater. Everyone who flew that ship had but one request: 'Build it.' So we did."



Super Cat. Production on the Super Ag-Cat goes on at Schweizer in Elmira, N. Y., and research work continues with new developments aimed at pollution control and ecological advances.



M. L. Cerullo
Honey, Pre-Fit



E. J. Cooney
Tech Service



O. Kassopian
Final Assem.



H. J. Baldwin
Prod. Control



C. C. Conrad
Tool & Die



E. Brambach
Facils. Mtce.



B. A. White
Tech. Directives



D. E. Pesce
Mechanisms



R. L. Conrad
T/M Engg.

March service list . . .

(Continued from page 4)

PLANT 6: Owen J. Healy, Hydraulics; John F. Maher, Ordnance; Fortunato P. Vitello, Final Assembly; Leonard Murphy, T/M Methods Engineering - Aircraft Production; Kenneth Bruer, Facilities Maintenance; Vito Buffa, Inspection - Electronics; Raymond W. Haas, Rec. Inspection - Hydraulics Fuel Test.

PLANT 7: John F. Osborne Jr., Vehicle Production Engineering; Henry A. Wahl, Administration; William E. Biggs, Flight Safety.

PLANT 10: John J. Flatley, Quality Control Quality Engineering.

PLANT 12: Frank Barbato, Production Control Intra-Plant Transportation; Angelo Val De Tara, Metallurgical & Chem Lab.

PLANT 14: Thomas Beccario, Lab Test.

PLANT 16: Frederick Bonello, Tool Fabrication - Templates.

PLANT 17: Salvatore Tedesco, Government Material Control.

PLANT 25: Joseph Visconti, Structural Analysis.

PLANT 27: Walter A. Matuza, Major Assembly; William M. Fischer, Center Section Sub-Assembly; Edmund E. Blaas, Production Control - Plant Stores & Distribution.

PLANT 30: James V. Hood, General Purchasing; Albert H. Rich, Materials Accounting.

PLANT 33: Francis E. Fitzgerald, Propulsion; Edward S. Teleweck and Louis L. Bauser, Electronics Repair; Stanley J. Mias, T/M Engineering - Method Electronic Tech Systems; Edward C. Smith, General Purchasing.

PLANT 34: Anthony J. Milauckas, Crew & Equipment Integration; Edward A. Stewart, Plant Protection; Carl E. Swanson, Program Management KA-6D; Joseph J. Morrison, Configuration Data Management.

PLANT 35: Harold R. Mead and Harold B. Hop-

kins, Fluid Mechanics; William B. Hatch and Joel E. Stigers, Quality Control Systems & Procedures.

PLANT 36: Michael J. Labella and William J. Moloney, Upholstery; Seaton H. Stenard and Martin D. Candito, Sub-Assembly; Harry Stokey and Joseph F. Costello, Fuselage Minor Assembly; Manuel Arroyo and Francis Fick, Fuselage Major Assembly; Edward A. Morris, Structural Designers.

PLANT 38: George J. Ballard, Training & Development.

PLANT 83: Stanley E. Wright, KSC Logistics; Vincent J. Quinn, KSC Manufacturing Shops.

Two women and 59 men reach the 15-year mark at Grumman this month:

PLANT 1: Taras Wakulinski, Avionics Inst.; Daniel J. Aquilino, Production Control - Plant Stores & Distribution.

PLANT 2: Armand A. Jalbert, Controls; Francis A. Melia, Hydraulics; James McDonagh, M P & P Mfg. Cost Prop.; Joseph Lyzun Jr., T/M Engineering - Spares; Charles A. Prudhom, T/M Engineering Tool Design New Program.

PLANT 3: Stanley H. Anderson, Machine Shop L.I.; Henry Schillo, Machine Operation - Technical Service; Salvatore Pantano, Ind. Engineering - Equipment Service; Ronald W. Boyce, Production Control - Plant Stores & Distribution; John B. Nickerson, T/M Engineering Tool Design New Program; Michael Dusanivskyj, Vehicle Production Engineering; George A. Mannarino, Inspection - Mechanical.

PLANT 4: William J. Slade, Electronics Test; Eugene J. Burbol and Robert C. Nolan, Final Assembly - Structure; Edward E. Grams, Flight Operation/Gulf. O & R; Robert D. Sison, P/S Elec. & Integration Engineering; Conrad G. Sigloch Jr., P/S Commercial Operations.

PLANT 5: Thomas V. Lonergan, Propulsion; Frederick J. Dolan and Alfred J. Zaleski, Operations Anal. & Planning Research; Shirley J. Reiss, Executive Secretary.

PLANT 6: Patrick A. Hughes, Production Control - Plant Stores & Distribution; Arthur I. Williams, Weight Analysis; Vincent M. Buxo, Instrumentation Services.

PLANT 7: George D. Warnken, Airport Operations.

PLANT 11: Adolph Huber, Inspection - Tooling.

PLANT 12: Julio J. Tucci, Measurement Standard Technology.

PLANT 15: Robert J. McCarthy, Repair Control; Frank T. Peterson, Operation Planning & Budget.

PLANT 25: Anthony Varvaro, Crew Equipment & Integration; George R. Dubsky, Structural Test Engineering; Robert A. Carlstrom, Attitude Control Equipment; Arthur August, Advanced Development.

PLANT 30: William R. Schlosser, Requirements Planning; Helen Norman, General Purchasing; Louis A. Lionetti and Julius Keller, P/S Prov. Document; Edward J. Stastny, Equip. Engineering - Industrial Control/Maintenance Engineering; John H. LaFave, Materials Accounting.

PLANT 33: Arthur R. Andersen, GSE Mechanical; George J. Elias, T/M Engineering - Elec. Tech.

PLANT 34: Vincent Palmeri, Equipment Lines; Robert E. Bischoff, Environmental Control Design; Richard H. Palmer, Vehicle Drafting; Raymond W. Paul, Contracts Aircraft.

PLANT 35: Joseph J. Popolo, Experimental Dynamics; James H. Becker, Computer Design; Robert E. Melnik, Fluid Mechanics.

PLANT 36: Louis Attina, Fuselage Major Assembly; John O. Helgesen, Special Projects.

PLANT 37: Louis J. Bocchino, Router & Shear.

PLANT 58: Robert J. Valente, Plant Management & Control.

PLANT 83: Ira D. Morgan, KSC Engineering; Thomas A. Lehecka, KSC Quality Control.

PLANT 87: Robert F. D'Errico, Purchasing Management & Staff.

PLANT 88: Charles A. Steinbrenner, Flight Test.

PLANT 89: John Klimek, Quality Control Supplier.

PLANT 90: Harry J. Deneau Jr., P/S A/C Systems Service.



Shepard, Mitchell, Roosa get warm welcome

What the Apollo 14 astronauts went through last Wednesday, March 24, may have been tougher than all of their previous training, their long lunar mission, their smooth splashdown, and their isolation-ward experience following their journey.

For on that day, it was cold as hell. And was it windy!

Despite the somewhat uncooperative nature of Northeast weather, lots of men and women of Grumman walked through the slashing wind to be on hand when Spacecraft Commander Alan Shepard, Lunar Module Pilot Ed Mitchell, and Command Module Pilot Stu Roosa climbed to the reviewing stage at the west side of Plant 4. They, along with Company, NASA, and Navy dignitaries, soon discovered that the very warm feeling sparked by the visit matched the almost cryogenic cold. Everybody shivered. In fact, those who had been awaiting the arrival of the astronauts were doing something akin to a jig—and bandleader Al Kordula's Grumman band never did get their horns warmed.

Yet, there was a great deal of enthusiasm. More than that, there was an astonishing amount of good cheer. The astronauts turned out to be a highly humorous trio.

Clint Towl and Bill Zarkowsky, President of Grumman Aerospace, weren't also-rans in that department either. They tossed out some good ones! For example, as Grumman Corporation Board Chairman Clint Towl began his remarks he asked the rhetorical question:

"Shepard may wonder why the hell he left Florida yesterday."

Naturally, there were a few jabs about "old pro" Shepard, and his golfing artistry. Shepard, as fast on the verbal trigger as he was calm and relaxed on the mission, started the outside laugh-in. On the matter of golf, Shepard reported that one of the first telegrams he got was from Arnold Palmer, who said he wanted to sign up for "the first Lunar Open."

(Towl confessed that earlier he had thought of asking why it had taken Shepard three swings to hit the ball; but he realized that the course was a little rough and it had taken a long time for Shepard to get there, so he thought better of it.)

Stu Roosa had a hot hand in the action, too; he referred to the Command Module Pilot—the CMP—as "the country music pilot. The LM-8 performed so well that I got Al and Ed out of my hair so I could play my music."

Ed Mitchell had a comment on that a





little later. He said, "We were glad to get out of his hair. We were tired of his *--+*- about not being able to play his music!"

It wasn't all fun and games, though. Actually, both Towl and Zarkowsky on the one hand, and the astronauts on the other, had serious messages to convey. One of the most powerful statements came from Shepard who declared that "It was just great and fantastic. You're quite a gang. You really can build things." He followed up later with the hard sell:

"I've met people who say that they are sick and tired of the country spending \$4½ billion on space when they have hungry buddies out of work. The fact is that of each tax dollar, 39 cents goes to your buddies, and 1½ cents goes to space. That speaks for itself. We believe in the space program. We think space is as inevitable as aviation—and I'm going to keep talking about it!"

That is just the feeling that Zarkowsky expressed when he said that "the United States is first in space and we'll be first with the Space Shuttle." And he mentioned, too, that "every flight gets better . . . and the important thing is, the LMs get better."

Tributes came from Mitchell and Roosa. Roosa said that he had been on the space program for five years, and that in "touring through the plants you could sense and feel the esprit de corps that you have here. It's a great tribute to all of you that you have such a close-knit corporation."

Mitchell mentioned that "You folks made it all possible for us. They're great vehicles—I'd like to see more LMs. I'd like to fly more missions. We started something and we're not going to turn it off. The very first space exploration started here at Grumman and it should continue."

National need

As Towl had said earlier, "We are only at the threshold of space." So there was a community of agreement on the worthiness of what had been done and the need for the nation to continue pressing in the area of space research and technology.

Near the end, there were exchanges of awards: Shepard presented a plaque with the nameplate of the vehicle he rode to Senior Vice President Joe Gavin; Roosa presented to Zarkowsky the patch of Apollo 14 and a photo of the flag on the moon; and Mitchell presented Towl with a "grimy and dirty hammock" — one that had traveled one-half million miles and Mitchell had slept in for only two hours of the more than 200 hours they spent on the space odyssey.

What the men of Kitty Hawk-Antares accomplished during their 216 hours from launch January 31 to splashdown February 9 fully merited the glowing phrase of Al Shepard's during the world's first press conference from outer space: "A smashing success!"

It was that, and more. In view of the cliff-hanging moments that dotted the action from start to end, "incredible success" is not an outlandish evaluation. Send your memory backward on the track of time, back to prelaunch. Remember? The countdown was going well, and then, an ominous dark cloud drifted over KSC, and the countdown stopped. Bad weather might have postponed the flight to a March date; but the cloud

sped off in time for launch.

And remember the in-mission problems: a low-voltage reading from one cell of Antares' 20 ascent batteries; a false "abort" signal just prior to landing on the moon; the six tries it took for Kitty Hawk and Antares to dock on the way to the moon; the occasional breaks in communications; and the apparent failure of Antares' backup guidance system shortly after it left the lunar surface preparatory to docking with Roosa's Kitty Hawk for the trip back home.

Yet, in the end, it all worked out and there was a pin-point landing in the Pacific south of American Samoa, where the prime recovery vessel, the USS New Orleans, had stationed herself.

Longest walks

Even more important, in a sense, was what Shepard and Mitchell did while on the Fra Mauro area of the moon. The Old Man Time of the mission, 47-year-old Shepard (and America's first man in space 10 years ago), joined with "youngster" Mitchell to set a record for time on the moon, about 33½ hours. What did they do? Well, they:

- Set up more scientific experiments on the moon than had the men of Apollo 11 and 12 before them

- Gathered up some 108 pounds of rocks, two as large as footballs

- Used a "thumper" 13 times to create seismic waves that help scientists to understand the moon's structure

- Employed a nuclear-powered transmitter and antenna to record moonquakes, assess electrically charged particles, and take data on solar "wind"

- Used hand grenade-like charges to send vibrations to a depth of 70 or more feet on the moon

- Set up a laser retro-ranging-reflector that will help scientists around the world to get more accurate earth-moon distance measurements

- Pulled a two-wheeled rubber-tired "rickshaw" along the lunar surface to make rock- and tool-carrying easier (although they sometimes carried the rickshaw because of the rough terrain)

- Brought back materials near the rim of Cone Crater that geologists believe may date back to the moon's beginning — as far back as 4½ billion years ago.

It was a mission distinguished by successes, not the least of which was the splashdown of the space voyagers just about one nautical mile off target and only four nautical miles from the recovery ship.

It was, as Shepard had said, "A smashing success!"

Those on hand Wednesday to greet the astronauts at Bethpage obviously seconded the motion.



Orlando hits 686, Gabriel 277 to pace scoring in GAA pin loops

Oh, shed a tear for Larry Orlando of the Classified league. Larry, who holds a 172 average, rolled a sparkling 686 recently on games of 247, 215, and 224 to outdistance Larry Dirheimer's 255-210-620 with ease. But one score he didn't come close to is Bob Dudonis' 719 league standard. So, Larry, who kept the Peenogeas in second with a string good enough to erase most league marks, had to settle for individual high in the session. Change leagues next year, fella. Other high scorers were Sal Capitano, 215-203-596; Hank Burkhardt, 238-608; and Jack Rainford, 259-584.

It was "sock-it-to-em" time in the Babylon Mixed league a couple of weeks ago, and the Shadows proved to be less than ethereal as they bashed the Unpredictables, 8-3, to widen their lead at the top of the standings. And who proved to be the biggest basher?—why Ed Gabriel, of course. Ed has been on a one-man tear in recent sessions of the loop, and perhaps he outdid himself in this head-to-head clash with the Unpredictables as he posted a new men's high of 277 while climbing to a robust 683, just one stick shy of Steve Cominski's league mark. Oh yes, Steve bowls for the Unpredictables.

Aiding and abetting the assault on the Unpredictables were Pat Sabetelli, 177-505; Roseann Gabriel, 167-496; and Rob Ogilvie, 215-576. That was good for a 973 game with handicap, and 2571 series, both league standards. Other league highlights included Lee Greey's 218-586; Cominski's 580; and Barbara Rumsey's

473. Later, Gabriel hit 204-581; Cominski, 229-580; and Pete Jordan, 223-470.

And the high-rolling lefty (is it true that all southpaws are a little flaky?) was prominent in the strong Masters league, too. Gabriel turned up atop that list with 904 for four games, with individual lines of 234, 236, and 257. Headliners, too, were Pete Katalo, 222-823; Ed Hilbert, 232-821; Jerry White, 208-203-802; Charlie Gosline, 225-779; and Ike Washington, 801. . . . Jerry Casale's 205-574 and Frank Magri's 213-570 topped the Outpost loop. . . . Give a cheer to John Proscia in the Rocket circuit: he went 120 sticks over his average with a 268 in a 594 series. Earlier, Vin Esposito matched that total with a 234 high.

Nite Owl leaders

Judge Locke and Ernie Jenkins took turns keeping the Spoilers ahead of the Nite Owl field, while Al Moszkow rolled a sparkling string for the second-place Bombers. Judge hit 228-200-620 to earn second-billing on a card highlighted by Moszkow's 208-244-637. The next round, Ernie also pushed to 637 on the strength of 205 and 246. . . . In the Black league, Jack Nielsen's 234-609 edged Vic Matuza's 233-200-607 for series honors. Frank Oczko's 258-204-599 provided another kegling bright spot. . . . The 4 Ss go rolling along—and Sid Weihs adds to their momentum every so often with standout series. Lately, Sid contributed 592 and Arlene Schwemmer added 477 to increase the



Al Berka
Has hot hand

Ss lead in the Monday Mixed loop. Other high scoring Mixed keggers were Bob Annunziata, 231-584; Joe Ankner, 232-570, and Val Gilreath, 213-560.

It wasn't likely that 245 would last forever as high game in the Trader loop, but Al Moser and Charlie Gosline were hoping. It didn't. Tom Wright came along a couple of weeks ago and hit 248 in a 609 string, and that was that. And Moser also watched his second-high series disappear recently when Al Weston took over runner-up honors with 633 on games of 222 and 223. Among the readings at Oscar's were Steve Kish's 235-586; Gosline's 211-593; and Al Stevens' 562.

Berka shines in pistol meet

Though Al Berka has anchored Plant Protection to a number of pistol tournaments, there probably were some on the tourney trail who had heard little of the solidly built Grumman security man. They're getting the word now.

A couple of weeks ago Al competed against some of the best in the southeast region—about 350 were in the action—during the National Mid-Winter Pistol Championships at Tampa, Fla. In the Police Master section of the .22 caliber pistol fire, Al scored 186 in slow fire at 50 yards, good for first place; 291 in the national match course, first place; 195 in timed fire, second; and 198 for rapid fire, first place. His aggregate score was 870 out of a possible 900—also first in the competition.

As part of the event, the 10 highest scorers from both sides of the Mason Dixon line were selected for a little shootout. Berka's selection for the Yankee squad marked the first time a non-military man was accorded that honor. In fact, he was the only "civilian" in the final event, which was won by the Yankees.

B's have it

The Grumman B pistol team seems to have things all wrapped up in the L.I. Industrial league after a recent 997-971 victory over Indian Head. The win, sparked by Ray Nordmark's 251, gives the Bs undisputed first place in shoulder-to-shoulder (scratch) competition.

Other high scorers for the Bs were Mort Weinberg, 249; Dick Cabbie, 249; and Doug Crooks, 248.

Earlier, the Bs rapped Republic, 1014-970, as Cabbie shot 264 to lead the scoring. Other standouts were Bill Boyce, 225; Nordmark, 250; and Weinberg, 245.

Boehm stands out

Phil Boehm of Plant Protection placed second in the sharpshooter class in the southeastern New York State sectional of the National Rifle Association indoor championships early this month. Phil, who represented the Rod & Gun club, placed second in .22 pistol slow fire, third in timed fire, and second overall in the sharpshooter class with an 813 total.

Softball squads plan warmups as skiers still 'think snow'

The Grumman Athletic Association has scheduled organizational meetings for all softball teams that expect to participate in lunch-period or after-hours play. One representative from each team and the league commissioner are requested to attend. Meetings for lunch-period leagues in Plants 1, 2, 3, and 5 will be held in the Plant 28 auditorium at times listed.

Plant 1: Wednesday, April 7, 11:50 a.m.

Plant 2: Tuesday, April 6: First lunch - 11:50 a.m.; Second lunch - 12:40 p.m.

Plant 3: Friday, April 9: First lunch - 11:50 a.m.; Second lunch - 12:30 p.m.

Plant 5: Wednesday, April 7, 12:30 p.m.

Plants 6-7: Thursday, April 8, 11:50 a.m., Plant 6 conference room

Plant 27: Monday, April 12, 12:45 p.m., cafeteria

Nite Owls: 10 p.m., Plant 2 conference room

Meetings for managers in after-hours leagues will be held at the GAA office, Plant 28B, on the days listed, starting at 5:30 p.m. **Monday:** April 12; **Tuesday:** April 13; **Wednesday:** April 14; **Thursday:** April 15.

Girls' tryouts

Tryouts for the girls varsity softball squad are scheduled to begin next Sunday, April 4, at 2 p.m. at the Plant 1 field, and will continue after work at Plant 1 on Tuesday, April 6, and Thursday, April 8.

Diane (Sparky) Youngs will manage the club this season, and, depending on the turnout and interest, the girls will enter the Nassau industrial loop or an open league in the area. For additional information, call Chet Baumgartner, GAA, Ext. 2133.

Finish near top

Finishing its season on a high note, the Grumman Alpine ski team concluded its regular season in the N.Y. Amateur Ski Team League with a victory in the Robert S. Leiser Memorial Trophy

Race, held recently at Magic Mountain, Vt. The win earned the skiers a second place finish in the league, only one point behind winning Edelweiss in the team standings.

Grumman racers who won medals were Carol Sweeney, gold; Ellie Rosenberg, silver; Frank Rosenberg, gold; Riho Melts, bronze; and in men's class B, Dick "Crash" Stinson, gold; Lex Bogan, bronze.

Bob Schmitt won the league's invitation downhill race held at Gore Mountain.

Grumman second in Industrial bowling classic

Predicting a winner in the L.I. Industrial men's tourney is getting to be a hazardous undertaking. Last year, Kollsman surprised the experts by taking home the L.A. (Jake) Swirbul championship trophy, much to the chagrin of Grumman, Sperry, Republic, and LILCO, all past winners in the tournament.

And in this year's play, another long shot appears headed for certain victory in the 30th annual pin extravaganza. With one more round to go (and that one was scheduled for last Saturday night), Aerospace UOP led second-place Grumman by 266 pins, and showed no signs of being ready to relinquish that honor. In fact, since it grabbed the top spot on opening night Aerospace has been steadily increasing its lead.

Steve Zgutowicz is the big reason Aerospace is outdistancing the 16-team field. In the first nine games, he's averaged a little better than 206, with an 1856 total. Grumman's Ed Hilbert is not too far behind with 1822 for a 202 average over the first three rounds.

Aerospace, however, is 839 pins over its entering average—a really fantastic effort. Grumman, in second, is a respectable plus 116 in the Incentive division. Take a look at the third round scores and see how remarkable Aerospace has been. It had 993 to Grumman's 900 in the first game of the three-game set, registered 1004 to Grumman's 1029 (a tourney high this year) in the second line, then pushed on to 1020 as Grumman settled to 969. With one round to go as Plane News went to press last week,

it looked like the other 15 teams would just have to "wait till next year."

In the third round, Joe Brunetta of Sperry hit 267-613 to share individual laurels with Dave Metzger of AMF, who had 258-641. Zgutowicz fired 205-215-605, while Hilbert rolled 215-215-200 for 630. Other Grumman scorers were Jack Nielsen, 201-219-591; Bruce Karen, 238-201-619; Mike Greggo, 503; and Frank Tucholski, 204-555.

Earlier, Nielsen's 212-575 led the Grumman contingent in a round marked by Karen's 213-564; Greggo's 543; Tucholski's 535; and Hilbert's 203-559.

The two top men and women from the Grumman varsity teams will compete next Saturday in the Pan Am mixed tournament, a three-game event scheduled for Mid Isle, at 8 p.m.

GRUMMAN, March 29, 1971

"What do you look for in a job assignment: long-term security, high pay, responsibility, or challenge?"



Harold Johnson
Config./Data Mgt. - Plant 5

Long term security and responsibility, with the feeling that as you continue to perform with satisfaction your position becomes much more permanent. When you are given a new responsibility challenge is usually a part of it. High pay is a reward for responding favorably to your responsibility.



Jane Cummings
Structural Anal. - Plant 35

They're all kind of important. Of course I do like high pay, doesn't everyone? Benefits are important and I do need some kind of security. I like responsibility. Pressure I can do without but responsibility is something else. And with responsibility you sometimes have challenge. And this is what prevents boredom.



Charlie Boppe
Advanced Development - Plant 35

A combination of challenge and responsibility. I seem to work harder and perform better when people are depending on me. And though I am very security conscious, I am kind of young to be concerned with pensions. All in all I would say it's a combination of everything.



Alexis Cenko
Aerodynamics - Plant 35

Challenging assignment. The challenge & the excitement of the space program got me interested in engineering. High pay comes second. And as for security, I'm not interested in pensions and such right now, that's too far off in the future. Just thinking of being on a job for 40 years leaves me cold.



Albert Schmidt
Machine Shop - Plant 3

A challenging assignment. I couldn't do my job if I didn't enjoy a challenge. Challenge and responsibility kind of go together. We made the major parts for the first F-14 here and that was a challenge and a big responsibility. Security is important too, especially when you have three kids in college as I do.



Dick La Monte
Machine Shop - Plant 3

For me it's a challenging assignment. Doing the same thing every day is not my bag. Every job I get is a challenge and let's face it: with challenge comes responsibility and this is followed by higher pay, right? I'm not sure there's such a thing as long-term security.

Voilà! Lucky find on beach stroll earns French lad prize keepsake

A Pepsi bottle containing a note from Grumman Aerospace washed up on the shore of a little island near the mouth of the Loire River in late January, and suddenly a young French lad and a big American corporation had a beautiful friendship going.

Pascal Renaudin, age 12, a resident of Ile de Noirmoutier off the west coast of France, was walking along the beach with three friends one rainy Thursday when he noticed a sealed bottle with a paper inside. Young Renaudin broke it open, and this is what he read:

"14 July 1969, Port of Palm Beach, Florida

"This message is being launched in the Gulf Stream to mark the beginning of the Gulf Stream Drift Mission of the Grumman Aerospace Corporation's submersible Ben Franklin.

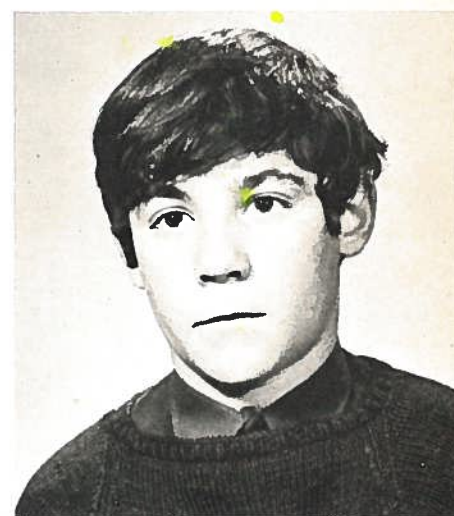
"A medallion commemorating the event will be forwarded to the finder of this bottle, upon receipt of the completed questions below."

Pascal put the paper in his pocket and took it home to get help from his father. Together they filled in Pascal's name and address and date of finding, (January 28, 1971) and mailed the paper, somewhat faded and battered from its year-and-a-half travels, to Grumman Aerospace in Bethpage.

Drift Mission medallion

Cheered that one of the Drift Mission bottles had drifted all the way across the Atlantic—although it had taken 564 days to do so—Walt Muench, director of Marine/Ocean Systems, promptly dispatched the promised medallion and some further questions to Renaudin — this time in French, thanks to Ed Rabut of Marine/Ocean Systems, who speaks and writes the language fluently. Muench told Pascal that 100 bottles had been released on July 14, 1969 at Ben Franklin's dive site 20 miles off the coast of Palm Beach, Fla.

"It is with great pleasure," Muench said, "that we send you the medallion commemorating the occasion of the Ben Franklin's extraordinary voyage, which was successfully completed in 30½ days . . . Enclosed please find (also) a brochure about the Ben Franklin and the Gulf Stream Drift Mission." Pascal responded with a photo and answers to Muench's questions, adding, "I am very happy to receive your news and to learn that the message I sent you will help you with the mission results of the



Pascal Renaudin

Mesocaphe Ben Franklin."

"It is extremely difficult to draw any significant conclusions from the finding of one bottle. But there is no doubt," says Muench, "that it was propelled to its landfall by the Gulf Stream current. One can't help but wonder if other bottles will turn up, and when."

Job query wins

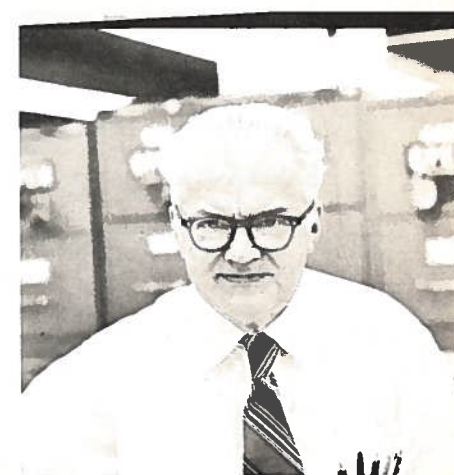
It was Gus Sellgren of Specifications, Plant 1, who lit up the "You Said It" board this time with a four-option question: "What do you think is most important in a job: long-term security, high pay, responsibility, or challenging assignment?" That earned him a set of Grumman glasses.

Then we asked Gus to answer his own query, and found him to be a diplomat-philosopher, one capable of seeing the query as "a sequence of happenings rather than actual values." The four roads, in effect, merged into one. Says Gus:

"The position or the service I give, or both, is the most important. The money—the compensation for my service—shows the direct relationship between me and my work.

"The retirement plan, though, is my final Company reward; though it carries a great degree of security, it has also made tighter bonds between me and the Company."

(All "You Said It" photos by Bob Settles)



Gus Sellgren

Headed for Europe

Dick Mustapich looking forward to an 11-day tour of U.S. Air Force bases in Europe, starting April 4, when he'll fly from Bolling AFB to Weisbaden, Germany. Dick, who works in Manpower Planning and Control, Plant 1, was selected by the Amateur Softball Association and the Air Force to participate in a series of pitching clinics and exhibitions at European bases. Dick, at one time somewhat of a child prodigy on the softball diamond, has been chucking for nearly 20 years. This trip should prove a mighty nice way to round out a long career.

Riders Wanted

ISLIP: Bay Shore, Babylon via Sunrise Hwy., Rte. 109 to Bethpage plts., 7-4 p.m. JU 1-7826.

For Rent

TENT TRLR.: Coleman, hdtp., slps. 6, incl. all access., \$70/wk. 751-1256.
APT.: Locust Valley, lrg. 3 rm., all util., walk to bch. 671-0517.
HOUSE: Nr. Bethpage, 3 bdrm., o'sz. gar., unfurn., \$300/mo., 1 yr. lease. 298-9424.
HOUSE: Hamptons, new 3 bdrm. ranch, ½ acre, sundeck, pvt. dock, accom. 6, Memorial Day to Labor Day, \$1,900. 423-7230.
SKI LODGE: 3 bdrm., nr. Magic, Bromley, Stratton, also avail. off season. 212 291-4891.
ROOM: Hicksville. WE 5-2466.
MOBILE HOME: 55 ft., in Oceanside trlr. pk., Montauk, on ocean, summer rental, suit. 6. MY 1-5123.
ROOM: Glen Cove, pvt. bath, Indry. & kit. priv. avail., gent. pref., \$80/mo. 671-4083, after 6.
ROOM: W. Farmingdale, 10 min. to plts., gent. pref. CH 9-2873.
APT.: N. Massapequa, 4½ rm., unfurn., stove & refrig., wash. & dry. mach. on prem., \$225/mo., lease & secur. JU 1-7499.
HOUSE: In Poconos, July-Aug., all-elec. appli., dish-wash., dispos., wash/dry., 2 level, 2 bdrm., 2 bath, lrg. fam. rm., liv. rm. w/firepl., scrn. porch, slps. 8, sports, lakes, pool, teen club, tennis, \$750/mo. 643-8493.

Wanted

APT.: 3½ rm., for yg. couple, pref. in pvt. home, under \$200/mo., Aug./Sept. occup., Bethpage to Northport vic. M. Abramoske, Ext. 1239.
MISC.: Used copper convector radiation or comp. hot water heat. sys. for 5 rms. 727-6441.
TRANSCIVER: 2 meter Gonset IV ham. G. Russell, Ext. 2704.
BICYCLES: 1 or 2 std. sz. woman's lgt. wgt. racer type; also 1 child's seat, suit. for mtg. on bicycle. 212 261-8649.
APT.: 3½ rms., for yg. work. couple, Apr. or May occup. PY 6-8378.
CHEVROLET: '66-'68, 6 or 8 cyl., pwr. steer., auto., gd. cond. RO 4-2029.
MOTORCYCLE: 150-200cc Scrambler. 626-0835, bet. 5-6 p.m.

Ride Wanted

BAY SHORE: To Pit. 25, round trip. MO 5-9116.
MASSAPEQUA: To Bethpage, Pit. 25, 7:30-4 p.m. MY 4-3537.
WOODSIDE: Queens to Pit. 5, 8-4:30 p.m. Roger Thiele, Ext. 87573.

Lost

DIA. RING: Man's reward. MO 5-5206.

For Sale

FORD: '64 Galaxie 500, 2-dr. hdtp., 8 cyl, auto., pwr. steer., \$595. MY 2-5928.
MGB: '65, red, Abarth, new trans. & clutch, comp. rebilt., \$990. 587-2489.
SAAB: '68, 4-spd., R&H, 2 xtra whls., \$800. 924-3730.
CHEVROLET: '69 Malibu, yel., blk. vinyl roof, auto., pwr. steer., bkt. seats, cons., rear defogger & spkr., 16,000 mi. 884-5881.
WAGON: '57 Chevy, 283, pwr. pack comp. rebilt., new notched alum. pistons, Duntou cam, valve job, new oil & fuel pump, dual pt. dist., reground crank, new main bear., new Muncie 4-spd., traction bars, hdrs., slicks, 10½ clutch & pressure plate, etc. 653-5251.
VW: '68 Bug, radio, auto. stick shift, lug. rack, snows. 212 258-6953.
VW: '68 Bug, R&H, orig. owner, 16,000 mi., \$1,395. 368-6128.
MUSTANG: '70 Mach I, pwr. steer. & disc bks., air cond., 351 c.i., 300 hp, sports slats, fold down rear seat, auto., ivy grn., \$2,900. 234-0672.
TRANSCIVER: Lafayette mod. 25A w/2 turner mikes & ant., \$89. 433-1374.
MISC.: Turner mike w/std. & cable; 2 Zenner hand mikes; 1, 300w soldering iron; 8 sq. chassis punch; 2 turntbl. motors; 1 Valtrol 0 to 130v, 5 amp; 40 #9001 tubes;; 1, auto. bat. charger, Sears; 1, 19 in. G.E. TV, nds. repairs, \$25/all. 541-7265.

For Sale

HOUSE: Wantagh Levitt, 3 lrg. bdrm., new tiled bath, 2nd bath set up, pan. den, bay wind., sq. seat-in-kit., lrg. foyer, new appli. & carpet., 100 amp, 220 elec., o'sz. attach. gar. & workshop, patio, lrg. prop., \$29,500. PE 5-4797.
HOUSE: Selden, Pt. Jeff. Sta., 3 bdrm. ranch, w/w, attach. gar., 1/3 acre fenc., lrg. kit., pan. fam. rm., 3 appli., lrg. fenc. patio, s-s, \$23,990. optional, 24 ft. pool w/10x12 redwood deck, \$25,490. 928-1162.
BABY CARR.: Bilt-rite lrg. fold. type, metallic blue, 4 wh. bks., \$20. 751-3109.
HOUSE: N. Massapequa, mother & daugh., 3 bdrm. ranch, 100x100, firepl., fully Indscpd., all brick, 2 bdrm. down, w/sep. ent., bath & kit., rental \$185/mo., 6% mtge., \$36,000. 799-8788.
HOUSE: Patchogue, 3 bdrm. ranch, xtras, \$21,000. 289-5623.
HOUSE: Wading River, 4 bdrm. cape, 2 bath, liv. rm. w/firepl., panel. beam. fam. rm. w/16 ft. slid. gl. drs., 2½ heat. car gar., 1½ acres, Indscpd. & wood., patio, appli., xtras, low \$50s. 929-4503.
YEWS: Upright 8 in. seed. individ. potted MY 4-6044.

at your SERVICE

This is a free service to Grumman personnel for non-commercial advertisements, accepted on a first-come, first-served basis. Classified advertisements are carried in PLANE NEWS only on the basis that everyone replying to such advertising will receive fair and equal consideration regardless of their race, creed, color, or national origin.
Type or print ad on form available at Employee Services and Engineering counters, and send via interplant mail to PLANE NEWS, Plant 5, Bethpage. List home phone (with area code if outside Nassau or Suffolk). Limit: one ad per person per issue. No item under \$10, no firearms or ammunition.

IRONER: Kenmore rotary, \$50. AT 9-3018, after 5.
PUPPY: Skye terrier, 5 mo., fem., gd. disp. & w/children, \$150. LT 9-2700.
LAWNMOWER: 21 in. Lawn Boy rotary, 3½ hp, xtra blade, grass bag, handbk., \$50. 588-6364.
PROPERTY: Birchwood Lakes, Poconos, ¼ acre lake-front, pvt. pools, golf courses, picnic areas, 6 mi. to ski slopes. 561-9753, after 8.
PROPERTY: Clinton County, Rte. 189, 29.4 acres, wood., evergreens, rd. frontage, elec. & telephone avail., ½ mi. to town Churubus Co., \$5,500. 293-9594, bet. 7-10 p.m. 732-5954.
CADILLAC: '64 Coupe de Ville, \$1,000; and '66 Ford ranch wag., 6 cyl., std., \$900. 273-8735.
CADILLAC: '57, new exh. sys., 4 gd. mtd. tires, eng. nds. repair, \$60. MO 5-1139.
AMPLIFIER: 80w, piggyback, bass, 15 in. hd. spkr., \$115. PE 1-2682.
FRENCH POODLE: 8 mo. blk. male, std. sz., papers, gd. disp., obed, gd. w/children, ask. \$75. 727-4469.
PUPPIES: Germ. shep., AKC. 212 IN 3-4662.
CHEVROLET: '64 Impala sta. wag., V-8 auto., pwr. steer., R&H, w/w. 584-7348.
FIAT: '69, 124 Sport Spider conv., yel., AM radio, garaged, 29,000 mi., ask. \$2,100. 585-3532.
KITTENS: Purebred Siamese, lilac & seal pts., no papers, pets only, male & fem., \$25. 271-1364.
POOL: 4x18x32 fig. 8 w/ladder, skimmer, filt., all wea. liner, \$250 or best offer. 588-5583.
RADIO CAR SETS: Citizen band, 5 auto units, 2 base sta. w/comp. equip., recently o'h, \$300 for all, or \$75 sold sep. Gus D'Errico, Ext. 3496.
HOUSE: Commack, 8 rm split, fully air cond., 2 car gar., firepl., 2½ bath, fenc. ¼ acre, patio, 5 min. wk. to RR & shops, xtras, under \$40,000. 261-3038.
HOUSE: Commack, 3 bdrm. ranch, 24 ft. liv. rm., din. rm., den w/firepl., EIK, 2½ car gar., patio w/awn., fenc. ¼ acre, xtras, ask. \$33,000. 864-7473.
CAMPER: Starcraft, \$1,100; new E-Z Kamper, \$950; Starmaster frame w/hydrau. Surge bks. & whls., \$150. JU 4-6633.
CORVAIR: '66, 2-dr., std., R&H, ask. \$450. 585-1967, after 6.
OLDSMOBILE: '69, 442, 4-spd., tape, pwr. steer., bks. & wind., Keystone mags, blue/blk. vinyl tp., \$2,100. 598-1494.
FISH TANK: Pump, etc., \$30. 212 275-1478, after 7.

For Sale

HOUSE: Oakdale, Idle Hour, 7 rm., 2 bdrm., firepl., bsmt., o.h.a.heat, gar., 100x105, \$22,800. 567-1269.
HOUSE: Huntington, 2 bdrm., w-w in liv. & din rm., outside ent. bsmt., walk-in closet, 10x16 stor. shed, lrg. slide yd., o.h.w. bsbd., s-s, cedar shakes, \$25,-000. 543-5365.
RID. LAWMOWER: 6½ hp Craftsman, 24 in. blade w/metal grasscatcher, 1 yr. 433-3013, after 5.
PUPPIES: Dalmatian, AKC, champ sired, male & fem., bred for temper., rdy. by Easter, \$100. 694-4892.
EQUIP.: Latest 4x5 Crown graphic, 135mm Schneider Xenar f4.7 lens in synchrompur rapid shutter w/ access., 4x5 film pack adapter, 4x5 Polaroid sheet film bk., 120 roll film adapter, Heiland flash gun w/2 reflectors, \$265. E. Rimmaudo Ext. 7711.
VW: '63 Bug, rebilt. eng. & clutch w/8,000 mi., 2 snows mtd., rebilt. front end, new bks., orig. owner, \$425; '65 Honda, 5,000 mi., orig. owner, \$150. Walter Kolody, Ext. 84186.
CHEVROLET: '67 Impala sta. wag., 6 pass., 283, V-8, R&H, pwr. steer., lug. rack, w/w, snows, 42,000 mi., ask. \$1,500. AN 5-8257.

For Sale

PONTIAC: '67 Firebird 326, pwr. steer., posi., H.D. susp., auto. cons. w/gauges, dk. grn. w/rac. stripe, \$1,500. 472-2634, after 6.
BOAT: 17 ft. Sportscraft, fbgl., 60 hp elec. start. Evinrude, trlr., 3, 6 gal. tanks, all equip., \$1,200. 543-0972.
VALIANT: '64, V200, 170 c.i., std., 4-dr., over 20 mpg, R&H, new bks., shop manual, orig. owner, \$150. 543-2589.
BOAT: 16 ft. Lyman, windshld., steer. whl., Navy tp., 35 hp Evinrude, trlr., \$325. 261-0930.
PARTS: For '63 VW, seats, radio, new tires, eng. nds. crank, trans-axle, car tow cable. 285-7488, after 4.
ANTIQUE CLOCKS: School house drop octagon wall reg., o'haul., \$125; Engl. grandfather, scroll tp., ca. 1790, \$325. 751-1572.
AIR COND.: Wind. type, Chrysler Air Temp, 6,000 BTU, 7½ amps, new, \$100. Jerry D'Amura, Ext. 84915.
SKIS: Northland, 6 ft. 3 in., 140 cm. wood, plastic btm., metal edge w/Cubco bind.; 5 ft. 4 in. alum. poles, all, \$30. MA 3-4936.
MISC.: 4x5 Crown Graphic, 40 film hold., 2 graph-matics, 2 filmpack adaptors, Polaroid bk., \$225. AM 4-6632.
HOUSE: Farmingdale, Nassau Hill, 4 bdrm., 2 bath, liv. rm. w/firepl., din. rm., panel. den, eat-in-kit., w-w, 2 car gar., wood., pvt. rd., xtras, \$55,990. CH 9-8475.
FURN.: French Prov. oak din. rm., 72 in. tbl. w/gl. tp., 72 in. buffet w/hutch tp., 5 chrs., also Queen Anne bdrm. set w/vanity, best offer. MY 1-8163.
SKIFF: '59, 23 ft. Commodore, pulpit, outriggers, chr. & new canv., 215 hp Inteceptor, new manifolds, hds. & trans., rebilt. '70, rdy. to go, \$1,500. VA 5-2222.
SAILBOAT: 26 ft. Pearson Commander w/main, jib & genoa sails, slps. 4, lrg. cockpit, xtras, \$5,650. 261-1186.
SKIFF: 16 ft. fbgl., flota. & fbgl. seats, lgt. & ez to trlr., rdy for water. 543-6119.
BOAT: '68, 15 ft. fbgl., Duo Funabout 3V5F w/'68, 40 hp Johnson outbd., match. 900 lb. cap. trlr., xtra equip., \$1,150. 997-7286.
BOAT: 18 ft. Winner Minikai fbgl., '69, 120 hp 1/0 Mercruiser only 102 hrs., xtras, \$3,175. 799-5945, after 6.
BOAT: 21 ft. Flying Finn w/'68, 105 hp Chrysler outbd., summer & win. canv., 30 gal. tank, all inst., used 60 hr., \$1,650. 765-3480.

For Sale

BOAT: 28 ft. Sports Fisherman, flybridge, 225 hp Interceptor, S-S, comp. depth rec., \$2,300. 826-7407, after 4.
BOAT: 39 ft. cust. Sports Fisherman, twin 275 hp Chrysler, f.w.c., 6½ ft. hdrm. thru-out, press. hot water, 150w S-S, 2 depth finders, CB, outriggers, xtras, rdy. to go, \$11,000. WA 1-6079.
BOAT: 17 ft. wood lap., Cruisers Inc., new trlr., 40 hp, 2 props, garaged, gd. fish. & water ski, xtras, \$1,100. AN 5-2774.
OUTBD.: 40 hp manual '66 Johnson, winterized, rdy. to go, \$200. HT 3-0509.
GAS ENG.: Marine, '60 Interceptor, 215 hp, 2-1 reduc., rebilt. & new manifolds in '65, \$300. 826-1393.
BOAT MOOR.: 75 lb. mushroom anchor, chain, float, \$25. 584-7348.
HOUSE: Farmingdale, cust. 7 rm. ranch, 3 bdrm., fin. den, gar., air cond., w-w, appli, \$35,990. CH 9-1023.
MISC.: 6 pc. king sz. bdrm. set, \$300; 6 ft. break-front, \$300; Hotpoint freezer, \$150; G.E. elec. knife, \$10. 825-6436.
CAMPER: Deluxe Ford Econoline 123, V.8, auto, R&H, hvy. dty., pkg., low mi., fits in gar., xtras, ask. \$4,650. PY 8-6805.
MISC.: Hvy. dty. Westinghouse wash., 16 lb. cap., \$150; Gibson elec. dry., 18 lb. cap., \$100, both 9 mo.; Frigidaire self defrost., 16 cu. ft. refrig., lrg. freezer comp., \$70. 543-2676.
RANGE: Hotpoint, auto. timer, \$50. MO 1-5674.
MISC.: 11 cu. ft. wh. refrigerator & 11 cu. ft. wh. freezer, 365 lb. upright, both Whirlpool, \$100/ea. 212 297-9818, after 6.
PIANO: Brahms mahog., full keybd., w/bench, \$225. MO 7-2249, evgs.
PWR. MOWER: 18 in. Craftsman rotary w/grass catch., 3 yr., \$25. 935-4295, after 4:30.
SEW. MACH.: Singer mod. 301, slant needle w/attach., comp. w/wal. cab., orig. owner, \$65. 248-3839.
STEREO: Juliet AM/FM 8 trk. tape player, spkrs. incl., 2½ mo., best offer. 997-9267.
LAWNMOWER: 21 in. Toro reel type, \$60. Jerry Robbin, Ext. 1837.
STAMPS: World wide accumulation on stock pgs. & glassine envelopes, \$200. 735-7082.
EQUIP.: Precision tube checker, bench type, precision freq. meter, electronic parts & tubes. 884-5392.
WELL PUMP: Burk ½ hp jet w/tank & gauges, reason. 352-3727.
TV: 23 in. B&W G.E., \$35. 928-1043.
AIR COND.: G.E., approx. 12,000 BTU, 115v, \$45. 433-4637.
GOLF IRONS: '70, 2 wedge, topflite, \$110. MA 3-1889.
BDRM. SET: 3 pc. drk. brown, Danish mod., dbl. dress. w/mirror, chest, hdbd., \$150. 587-8994.
OLDSMOBILE: '63, pwr. steer. & bks., auto, \$250. 234-2490.

plane
GRUMMAN
news

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GRUMMAN, March 29, 1971

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For Sale

FISH TANKS: Five-gal. & 10-gal., all access, incl. pump, etc., \$14. AN 1-5936.

MISC.: Zeiss survey. transit, Theodolite TH 43, \$200. 221-6530.

HEAT SYS.: Hot air, gas, gravity, Bryant 90,000 BTU furnace & ducts, gd. for 4 rms. & bath, \$125. 681-7891.

AMATEUR RADIO STA.: W/Johnson-Viking II transm., xtal control for novice, VFO cont. for gen'l. oper., output 100w phone, 130 w CW, Johnson-Viking VFO mod. 122, Hallicrafter SX-28 rec. range, .55 to 43 MHz, w/Brasspounder & vibraplex keys, ant. relays for auto. changeover from trans. to rec., \$200. 724-5993.

MUSTANG: '68 GT Fastback, 302 V-8, 4-spd., turq. w/blk. int., tape, 39,000 mi., xtras, \$1,850. 588-4284.

MUSTANG: '66 Ford, drk. grn., 8 cyl., auto., blk. int., 41,000 mi., w/w, \$850. 731-2623.

BUICK: '65 Electra conv., tan w/blk. tp., full pwr., \$695. 781-3379, after 5:30.

MAVERICK: '70 gold/vinyl tp., R&H, std., snows, \$1,450. 234-2788, evgs.

KARMANN GHIA: '69, radio, mtd. snows, \$1,825. 751-2230.

MOBILE HOME: '69 Liberty, 60x12, liv. & din. rm., kit., 2 bdrm., bath, comp. furn. early Amer., oil heat & cent. air cond., \$7,500. 585-1967, after 6.

MOBILE HOME: '60, 10x45, 2 bdrm., furn., wash. & dry., air cond., xtras, \$2,000. 588-4284.

SNOW: 600x14 recap, used 1 season, fits MGB. 586-3511.

CAMPER: Starcraft, \$1,100; Starmaster frame equip. w/hydr. surge bks. & whls., \$150. JU 4-6633.

MISC.: Fender deluxe reverb amp., \$110; spkr. cab., H.D., 15 in. Jensen, \$40; P.A. amp, Lafayette, 75w, R.M.S., new, \$80. TU 4-3934.

AIR PUMP: Manual, adapt to 1/8 hp motor, smoke exh. capabil., \$25. 694-7861, after 6.

ENCYCLOPEDIA: '62 edit. World Bk. w/suppl. to date, \$75. 785-6382.

HAM EQUIP.: Transceiver 10 meters, fix. or mobile oper., Lafayette mod. HA 410, \$100. 486-0944, after 6.

CAB. CRUISER: '67 Glasspar, 21 ft., OMC 150 inbd./outbd., fbgl., xtras, ask. \$5,000; also ¾ ton stake bdy. pickup truck, '51 Dodge, '57 rebilt. eng. & 4-spd. trans., \$150. 363-6835, after 5:30.

BICYCLES: 26 in. girl's Columbia, \$28; 26 in. deluxe Royal Master, girl's, \$33; 20 in. girl's Schwinn, \$23. MY 2-5126.

OBITUARIES

Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.

JOSEPH LEONARD died March 8. He was 64 and had been with Grumman 23 years. He worked in Government Material Control, Plant 17, and his home was at 260 Van Cott Ave., Farmingdale.

JOHN H. COTTER of P/S Structural Mechanical Engineering Design, Plant 36, died March 11 at the age of 52. He started with Grumman in 1958. His home was at 804 Oak St., Bellmore.

LEOPOLD J. LA MONICA died March 13 at the age of 61. He worked in Tool Fabrication Sub Assembly - Tools, Plant 2, and lived at 193 Beverly Rd., Hempstead. He had been with Grumman since 1965.

JOSEPH LYZUN JR., of T/M Engineering Methods Mfg. Liaison Spares, Plant 2, died March 13 at the age of 36. He lived at 26 Sylvester St., Westbury, and had completed 15 years with Grumman.

JOHN F. AHEARN died March 16 at the age of 50. He had been with Grumman two years, and his department was Machine/Operations Final Planning & Control, Plant 2. He lived at 1089 Elliot St., Brentwood.

GRUMMAN, March 29, 1971

For Sale

GTO: '68 grn./blk. vinyl tp., blk. int., air cond., stereo, auto., new bks., water pump, carb-rear susp., \$1,850. SU 5-7781.

OLDSMOBILE: '65, F-85 Cutlass, all pwr., air cond., snows. 234-1195.

PONTIAC: '65, 6 pass. Catalina wag., deluxe trim, auto., pwr. steer., bks. & rear wind., snows. 265-3480.

IMPALA: '65 SS, pwr. steer. & bks., bkt. seats, w/w, new muff., auto., fl. cons., \$750.; '66 VW, \$800. 669-9088.

OLDSMOBILE: '65, ctr. cons., 41,000 mi., \$600. 757-2042.

CAMARO: '70, V-8, 200 hp, grn., blk. vinyl tp., pwr. steer. & front disc bks., auto. M. Hanifan, Ext. 3146.

TOYOTA: '71 Corolla 2-dr. coupe, wh./blk. int., under orig. warr., AM/FM, snows, undercoat, 3 mo., \$1,950. 212 459-4206, after 7.

CHRYSLER: '66 Newport 4-dr. sed., auto., pwr. steer. & bks., 40,000 mi., ask. \$1,050. 265-5654.

STA. WAG.: '60 Comet, best offer. IV 1-9046, after 6.

CHEVY II: '62 hdtp., R&H, auto., pwr. steer., \$225. AN 5-3489.

VW: '69 Bug, snows, \$1,400. JU 1-4817.

CHEVELLE: '68, 2-dr. Malibu, pwr. glide, blk. vinyl tp., pushbtn. radio w/rear spkr. & antenna, posi, rear defrost., new w/w & bump. guards, \$1,595. 822-2936.

BUICK: '61, 4-dr., pwr. steer. & bks., auto., new tires, batt., & shocks, best offer. RL 7-7047.

STA. WAG.: '64 Pontiac, orig. owner, ask. \$850. 367-4585.

PLYMOUTH: '69 Valiant, 2-dr., gold, 6 cyl., pwr. steer., alarm, new mtd. snows, air cond., xtras, \$1,725. 587-4413.

HOUSE: Sayville, bay front, 6 yrs., 3 bdrm. ranch, 6 rm., front & rear porch, 1½ car gar., fully bulkhd. on Gt. So. Bay, 75x210, sma. bch., swim, boat, clam, view Fire Isl., t.o. 6% mtge. w/\$216 mo. pmts., \$38,500. LT 9-6203.

HOUSE: Ft. Salonga, 2 yr. col., 9 rm., wood. acre, 5 bdrm., 2 ½ bath, form. liv. rm. & din. rm., fam. rm. w/firepl., 2 car gar., assum. mtge., ask. \$55,000. 757-2061.

HOUSE: Hauppauge, L ranch, 3 air cond. bdrm., fin. bsmt., den, eat-in-kit., w-w, in-grnd. pool, fenc., Indscpd., sprinkler, wood. area, Dist 6, \$36,990. 543-8638.

HOUSE: Huntington 7 rm. split, 3 bdrm., 1½ bath, playrm., ¼ acre, air cond., port. dishwash., gas dryer. HA 3-4888.

HOUSE: Bethpage Pk. area, 3 bdrm., 2½ bath, brick split, pan. den w/firepl., full din. rm., 2-car gar. w/auto dr. & heat, lrg. bsmt., 3-zone cent. air cond., o.h.w., fire alarm, patio, all appli., Indscpd. & fenc., alum. awn., wk. stores & RR, \$46,990. 822-3214, evgs.

HOUSE: Commack, 4 bdrm. col., 2½ bath, lrg. liv. & din. rm., fam. rm. w/firepl., 2 car gar., full bsmt., w-w, s-s, eat-in-kit., fenc. & patio, \$44,500, prin. only. 543-3732.

HOUSE: Islip, 4 bdrm., cust. qual. br. & cedar, 2½ car gar., 2 tiled bath, fin. bsmt. w/bar, 3 zone o.h.w., plaster, w-w, s-s, cov. slate patio, 100x100 treed, Indscpd. copper gutters, oak flrs., xtras, \$34,900. JU 1-9332.

HOUSE: Massapequa-Biltmore Shores, Dist. 23, split, 3 bdrm., 2½ bath, alum. sid., full din. rm., eat-in-kit., pan. fam. rm., firepl., dbl. gar., patio, 80x90 fenc., terr. garden, 3 new appli., s-s, blinds, w-w, \$41,500, 6% mtge. 799-4838, after 6.

HOUSE: Bohemia, 7 yr. cust. br. & cedar cape, 115x200, Indscpd., 2 zone o.h.w. heat, s-s, 4 bdrm., 1 king sz. panel., 2 full tiled bath, panel. king sz. liv. rm. w/firepl., form. din. rm., mod. eat-in-kit., full bsmt., gar., appli., grn. house, irrigation well, \$34,500. LT 9-7548.

FORD: '69 Torino GT-Fastback, 390, 4-bbl., 4-spd., pwr. steer. & disc bks., H/D susp., F-70x14 poly tires & stud. snows, styled whl., radio, tach, clock, \$2,100. 212 464-5641.

FORD: '68 Galaxie 500, 4-dr. hdtp. 722-4802.

VAN: '69 Chevrolet, 250 c.i., 6 cyl., std. trans., air shocks, alarm, \$1,700. CH 9-5914.

CORVETTE: '62, 4-spd., 327 c.i., 300 hp, \$1,700. 724-5978.

OLDSMOBILE: '68 conv., 442, pwr. steer., bks., & wind., auto., new tires, 30,000 mi., xtras, \$1,950. 234-1053.

MGB: '67, grn., wire whls, R&H tonn. cov. MA 6-1546.

TIRES: 2 Atlas Weatherguard stud. snows on Chrysler whls., H78x15, under 3,000 mi., \$65. HA 7-2810.

For Sale

TRAVEL TRLR.: '68 Tag-A-Long, 14 ft., slps. 6, stove, refrig., heat, xtras. SE 2-2606.

TENT CAMPER: '66 Nimrod Riviera hdtp., slps. 5, clothes stor., 8x12 canopy, spare tire, whl. chocks, wint. stor. cov., port. Coleman stove, heat., 20 lb. propane gas btl., dish cab., side mirrors, \$975. ED 4-0834.

BOAT: 29 ft. Egg Harbour, flybridge, fresh water cool., 130 hp Chris Craft, 2:1 red., fight. chr., 2 gib poles, rod holders, S/S, depth record., \$2,400. 669-8539, after 6.

LAPSTRAKE: 19 ft. Grady White, '69, 80 hp Merc. eng., used 40 hrs., Thunderbolt ign. controls, elec. start., 20 gal. tank, \$1,750. LI 1-4264.

BOAT: '66 MFG fbgl. 14½ ft., 33 hp, Evinrude Twin-ski elec., '69 Holsclaw tilt trlr. w/12 in. whls., 2, 6 gal. tanks, Nvy tp. w/side curtains, anchor, fire ext., pk. jack on trlr., wint. cov., ladder, \$1,100. MO 7-7890.

HOUSE: Strongs Neck, Setauket, 3 bdrm. ranch, 2 bath, panel. fam. rm., din. rm., 2 firepl., brick patio, w-w, appli., gar., pvt. bch. rts., ask. \$45,000. 941-4048.

HOUSE: N. Central Islip, 3 bdrm. ranch, w-w in liv. rm., lrg. fam. rm. w/beam. ceil., full bsmt., at-tach. gar., fenc., \$23,900. 234-6680.

HOUSE: Plainview, 4 bdrm. cape, gar., fin. bsmt., o.h.w. heat, 4 appli., carpet., blinds, storms., \$39,900. WE 5-4106.

MISC.: 23 in. B&W Zenith TV w/tbl., best offer; Toastmaster broiler, used once, best offer. 724-2671.

UTIL. TRLR.: 4x7, tires, whls., axle, spgs. & frame, \$30. 732-4769, after 6.

MISC.: '69 Javelin SST, grn., blk. vinyl tp., air cond., AM/FM, pwr. steer. & bks., 19,000 mi., gar., \$2,150; '69 Triumph Spitfire, R&H, 24,000 mi., w/w, blk. w/wh. tp., red int., \$1,650. CA 1-2981.

BOAT: '70 Winner, 19 ft. tri-hull, '70, 135 hp outbd. Merc., fully equip. w/canv., used 20 hrs., \$3,200. 587-4745, evgs.

HOUSE: Ridge, 2 yr. col., 3 bdrm., 1½ bath, liv. rm. w/firepl. & beam. ceil., formal din. rm., eat-in-kit., fam. rm., gar., full bsmt., o.h.w., s-s, circle drive, wood. ½ acre, \$29,990. 924-4487.

HOUSE: Commack, N, 3 bdrm. ranch, cent. air cond., fully carpet., all appli., in cul-de-sac, 1/3 acre treed & Indscpd., undergrnd. sprinkler, lrg. fin. bsmt. FO 8-5177.

HOUSE: E. Islip, 3 bdrm. ranch, playrm., 2 full bath, 20 ft. liv. rm. w/firepl., country kit., 105x150 treed prop. on Hollins Estate s. of ontauk Hwy., attach. gar., \$28,000. 581-4544.

PROPERTY: Sullivan County, 20 acres, wood., pvt. rd., 5 mi. from Liberty, \$650/acre. 261-9132.

MISC.: Dwarf & semi dwarf fruit trees; ornamental trees; shrubs & rose bushes. 543-3760, after 5:30.

BASSET HOUNDS: 2 fem., AKC, 6 mo., 1 red & wh., 1 tri-color, cash or breeder terms. 589-7858.

POINTER: German shorthair, AKC, 6 mo., shots, field start., \$80. 277-3637, after 6.

POODLES: Apricot minis, male & fem., \$75-\$100. CH 9-1385, after 4:30.

HOUSE: E. Setauket, 9 rm. ranch, 4 bdrm., fam. kit., 1/3 acre wood. corner, fam. rm. w/firepl., s-s, all appli., \$33,500. 473-4380.

HOUSE: Sayville waterfront, 3 bdrm. ranch, 6 yr., firepl., bulkhd. 75x210 on Gt. So. Bay, sma. bch. w/75x400 underwater prop., 1½ car gar., swim., boat, clam., 6% mtge., \$38,500. LT 9-6203.

FURNITURE: 94 in. sofa, pastel pink, best offer over \$50. HA 3-5994, after 5.

DIN. RM. SET: 36x52 tbl. w/3-12 in. leaves, fruit-wood, gl. tp., pads, 4 side chrs., \$100. 212 591-0081, after 5.

DIN. RM. SET: 7 pc. blk. sol. oak, \$100. 921-0865.

MISC.: Wal. formica din. rm. set, 72x30 tbl., 6 chrs., 54 in. hutch, \$225; Singer sew. mach. cons., \$20; Shetland fl. waxer, \$15. JU 1-3584.

MISC.: Antique oak buffett, \$60; Morris chr., \$50; dress. & bevel. mirror, \$85; chifferobe, \$100; cherry library tbl., \$100; platform rocker, \$100; mahog. bkcase w/2 gl. drs., adj. shelves, \$35; shadow box mirror, \$15. LI 1-1960.

MISC.: Silver plate coff. pot, creamer, sugar, \$15; silver plate 14 cup coff. urn & warm. unit, \$18. WA 1-2703.

MISC.: Westinghouse 14 cu. ft. elec. refrig., 110 lb. freezer cap., buyer must move, \$40; comb. storm & screen dr. w/frame 37x81, \$10. 293-7710.

MISC.: Port. TVs, 23 in., \$85 & 18 in., \$35; port. dishwash., \$25; recliner chr., \$15. 732-1950.

MINI BIKE: '70 Cheeftah Clinton, 3.5 hp, \$50. GR 5-3448.

For Sale

DODGE: '69 Monaco 500, 2-dr. hdtp., vinyl tp. & int., 23,000 mi., auto., pwr. steer., bkt. seats, sma. V-8, reg. gas eng., warr. still effect., \$2,675. 796-0617, evgs.

PARTS: For VW, dr. assem., 1 - left, 1-rgt., 2-rear side wind., 1 rear wind., 4 VW mag. whls. WE 5-0706.

MISC.: 650x13 tires, 4 w/w, 2 w/w snows w/rims for Valiant, \$50, will split; drum set, bass, tom-tom, snare, cym., gold flake, incl. sticks & brushes, \$85. AN 5-8377, after 6.

PARTS: Austin Healey, motor trans., o'drive, gen. start., rims. AN 9-6203, evgs.

AIRCRAFT: '69 Cessna 150 Commuter, 800TT, xtras, \$6,000. AN 1-3307, evgs.

SURF BD.: 9 ft. 6 in., \$45. MO 9-2892.

CARR.: Biltrite coach, ask. \$30. 543-1565.

MISC.: Car seat, hi-chr., sit-in rock. horse, stroller w/canopy & wind bkr., auto. swing, \$40. 212 251-7888.

MISC.: Deluxe Biltrite wint. wgt. fold. carr., blue, \$25; wal. deluxe mod. crib, \$25; bassinet, misc. nurs. items. 289-0815.

WED. GOWN: Sz. 9, empire, fit, bodice, ig. sleeve Alencon lace, never worn, \$35. 212 774-4889.

WIG: Dynel Rebel, brunette, unused, incl. brush. 587-4420.

ENCYCLOPEDIA: Britannica, vol. 1 - 24 incl. w/bkcase, \$130. GE 3-9793, after 5.

HOUSE: 5 bdrm. hi-ranch, rent downstairs, \$200/ mo., could be used as mother/daugh., low int., mtg. 5¼%, \$29,000. 589-5063.

RAC. SET: Aurora, 11 cars, 74 pc. track, pro cars, transformer, 2 steer, whl. controls, access., \$65. 785-6693, evgs.

TAPES: Record., 20, 1,200 ft. reels, \$10. 234-8310.

HOUSE: Smithtown, 1/3 acre, 3 bdrm., 1½ bath, din. rm., eat-in-kit., den, fin. bsmt. w/bar, Indry., oak fl., 2 zone o.h.w., patio, fenc., 18 ft. alum. pool, tax. \$900, \$34,000. 724-1469.

CALENDAR of events

Notice of events for period April 9 - 23 should reach Plane News by **Tues., March 30.**

Amer. Soc. for Metals: Wed., Apr. 14, Holiday Inn, Plainview, cocktails 5:30 p.m., dinner 6:30 p.m., mtg. 8 p.m., L.I. Chap. T. Hagerth, Mat'l. Research Corp., on "Sputtering, Theory, Techniques & Applications." A. Wirth, Ext. 1416.

Chess Club: Tues., 5 p.m., Pit. 3 Cafe, tourn., games. Alex Ikonnikow, Ext. 7592.

Duplicate Bridge Club: Thurs., 5:45 p.m., Pit. 3 Cafe, reserv. not required, partnerships arranged. Pete Harrington, Ext. 1812.

Ex-Servicemen's Club: First Mon. of month, 7:30 p.m., Pit. 28 Audit., exec. & gen. mtg. Al Kordula, Ext. 87259.

Family Campers: Sun., Apr. 4, Pit. 18, general mtg. Bill Lord, Ext. 2914.

Fencing Club: Fri., 5 p.m., Pit. 30 Cafe, competitive fencing & instruc. Joe Campisi, Ext. 1134.

Horseback Rid. Club: Wed., Apr. 14, 7:30 p.m., Pit. 28 Audit., Sect. 2, film on Horsemanship, refresh. & outline of activities. Donna, Ext. 86214 or Karen, Ext. 2725.

Nat'l. Contract Mgt. Assoc.: Thurs., Apr. 15, Kings Grant Motor Inn, 4 p.m. workshop, "Role of Contract Mgr. vs Prog. Mgr.;" 7 p.m., dinner mtg., Douglas Siegel, Dept. of Transp. on "Contracting Opportunities w/non-DOD/NASA Agencies." B. Stern, Ext. 2297.

Over Forty Club: Wed., Apr. 21, 6 p.m., Amer. Legion Hall, Chas. Wagner Post, Hicksville, month. mtg. F. Mistretta, Ext. 6427.

Research Lecture Series: Thurs., Apr. 15, 4 p.m., Conf. Rms. 1a & 1b, Pit. 35, Metro. chap., Dr. W. Wayne Meinke, chief, Analytical Chem. Div., Natl. Bureau of Stds., on "Nuclear Techniques in Matl. Analysis." J. Compton, Ext. 2165.

Ski Club: Wed., March 31, 8:30 p.m., Holiday Manor, Hicksville Rd., Bethpage. Lee Badalamenti, Ext. 2171.

Train. Device Assoc.: Fri., Apr. 16, 6 p.m., dinner, Lauraine Murphy's rest., 1445 Northern Blvd., \$7 incl. reg. fee. Ed duBois, Ext. 87418.



'Jeanie's Teenie.' Bud Crawford, who works in Plant 55, Savannah, shows off his tiny experimental plane. Bud has been building model planes for years, now has decided to fly them, as well. (Photo by Cary Can Sickle)

Crawford caps model plane craze by building tiny flying machine

SAVANNAH, GA.—“All I need is 70 more flight hours. . . .”

So what's the big deal, you may ask: Aren't there thousands of pilots who've logged in, individually, thousands of flight hours?

True, true; thousands upon thousands—but there are differences, as is the case with 34-year-old Bud Crawford in Maintenance - Transportation at Savan-

nah's Commercial Center. Bud is a tall, solidly built guy—the type you'd expect to play tackle or end on a pro team—whose passion has been model aircraft. “I've built them ever since I was a little boy. I like 'em.”

Well, the latest upshot of this hobby is a tiny experimental aircraft (he's named it “Jeanie's Teenie”) that he's built and flies in. That's right, he flies in it. So far he's logged in five flight hours. “All I need are 70 more flight hours to get my air-worthiness certificate. That's what I'm after, and as soon as the weather warms up, I'll get 'em.”

'Bug' power

That'll take a little doing, for the plane is “Teenie.” Its wingspan is 20 feet nine inches, its fuselage 13 feet seven inches, and it weighs just 650 pounds. It's powered by a modified Volkswagen engine that turns out 36 horsepower.

“The skin is made of 20,000ths of an inch T-3 aluminum, the propeller of three pieces of laminated redwood. And I'd say that the cockpit has the standard aircraft instruments,” Bud says.

He has no illusions that he's got a mini-Gulfstream, a sprightly bird that'll fly non-stop coast-to-coast. In fact, he's restricted by the FAA to flying within a 25-mile radius. That's no problem for Bud, who carries a student's license.

How about the flight characteristics of Jeanie's Teenie? According to Bud:

“I need about 1,100 feet for take-off, and when the plane's up there it cruises at around 80 miles an hour. Altitude? Well, I've had it at 2,500 feet. I'm sure I can take it higher; I'll find out how high.”

It's revealing no state secret to report that, on occasion, Bud has felt a little “leery” of flying his experimental home-made airplane. As a student pilot, too, his concern about such matters as stability is understandable. But he's in no way deterred. In fact, he's in the process of building another flyable model, this one of wood. Why? He grins and says, “I don't know . . . I guess I'm just a nut!”

Time running out in GAA drive; set prize drawing for April 5

Just two days left. That's all: two days. So if you haven't spent a buck for membership in GAA, ye olde Grumman Athletic Association, get on the ball fast!

Many have already responded—especially those in the so-called outlying plants. In fact, early-bird responses have been better than in earlier years, according to GAA's Mike Cherry, fund drive chairman. But there are a few areas that haven't been heard from.

How that happens is a bit of a mystery. On many a dark evening, the stalwarts of GAA have been observed in the desk-pounding meditation of seeking why, why, why. And from the lips of these astonished seekers of truth have often come the agonizing cry, “But don't they realize . . . ?”

Don't they realize what they get for a buck?

Don't they realize how many activities their buck supports?

And don't they realize (looking at it a wee bit selfishly) that by donating one dollar they're eligible for one of 65 prizes to be drawn on the golden day, April 5? Remember that date: April 5.

Prizes? How about 15 Panasonic port-

able combination AM/FM cassette tape recorders, or 50 sets of Grumman glasses. Not bad at all!

But better yet are the advantages of GAA membership. Just ponder a partial list of what GAA sponsors:

- Intramural softball, golf, basketball, bowling, tennis, and pocket billiards, yet.
- Hobby, art, photography, and flower shows
- Lunch-time activities, such as ping pong, horseshoes, and handball
- Cut-rate prices for professional sports events and foreign flights

In addition to all this, GAA provides (or arranges for) facilities, helps to furnish equipment for intramural sports, and sanctions a long list of clubs.

All of this requires money, and that's why there's an annual fund drive. GAA needs you, as well as vice versa.

In all of these good things that GAA does, there's a good thing that **does not** come out of your dollar: varsity teams. The varsity squads are supported by the Company.

A better bet is hard to find; in fact, well nigh impossible. So, remember: You have only two days left to be in on the drive . . . and you may be a winner in the drawing April 5.

For further info, call Mike Cherry of GAA on Ext. 2133.

Wide response to net tourney

It wasn't quite a deluge, but, for a while, entries arriving at the GAA office for the upcoming Company-wide tennis tournament did approach alarming proportions. As the March 26 deadline approached last week, about 100 men had entered singles competition, and more than 25 doubles teams had signed up for the tourney.

Alas, there were few, all too few, entries received for women's play. And another lugubrious note: tennis tournament committee member Fred Hermann forgot to mention in the original Plane News article that players will be expected to share court costs. But he reminds those already signed up that the Athletic Association will supply tennis balls for the tournament and will award trophies to winners and runners-up in the competition.

Hermann, who is captain of the varsity tennis squad, points out that tournament results will be used as a basis for selecting the varsity this year, and that all members of last season's championship team are entered. Play is scheduled for Bethpage State Park, or any other site suitable to competitors, starting Saturday, April 3.

The top seedings in men's singles and doubles were announced by the tournament committee, which is comprised of Hermann, Mitch Rosenbaum (varsity coach), and Bill Wenzel (former captain). The top seeds are:

Singles—Hermann, Jacques Crouzet - Pascal, Dick Kline, and Alex Kirillin.

Doubles—Grant Hedrick-Bill Wenzel; Fred Hermann-Tom Guarino; Tom Adee-Dick Kline; and Pascal-Jay Leng.

Additional instructions and a tournament draw sheet should be received by each entrant this week.



Final call. Lorraine Penrice of Product Support, Plant 15, would like to remind all Grummanites that time is running out on the GAA membership drive. Lorraine is displaying Panasonic combination AM/FM cassette tape recorders that will be awarded to the 15 top GAA prize winners. (Photo by Bob Settles)

GRUMMAN, March 29, 1971

Call softball tryouts for Intruder varsity

Although tryouts for the Grumman Intruder varsity softball team were scheduled to begin yesterday, Sunday, March 28, at Plant 3, it's not too late to get in on the action. The training sessions will continue tomorrow, Tuesday, March 30, and Thursday, April 1, and on Sunday, April 4.

The 1971 Intruders sport a new look. Jack Keane, a player and player-coach for six years, will manage the team this season, with veteran Fred Vitale as coach.

Keane and Vitale are looking for new talent to help spark this year's team after a disappointing finish in 1970. Last season was the first time in 11 years that the Intruders didn't qualify for the national industrial slow-pitch tourney—quite a comedown for a squad that won the national three years earlier.

The Intruders are expected to participate in two local leagues this year and will travel to Providence in June as defending champions of the Eastern Invitational Tournament. Since the tournament was established in 1968, Grumman has dominated the competition: the Intruders have captured the invitational crown three years in a row.

Will the Grumman Intruders be in York, Pa., for the national tourney over the Labor Day weekend? That depends, says Keane. He has some returning veterans, but he sees a clear need for good, young additions to the squad. If you're interested, call Jack on Ext. 1716 or Fred Vitale on Ext. 84280.